Objective: to characterize the scientific production that uses nursing theories from theses made by nurses in Brazil.

Método: bibliometric study carried out at the Banco de Teses da Coordenação de Aperfeiçoamento Pessoal de Nível Superior and at the Plataforma Sucupira, in November 2019. Sixty-three theses were selected, read in their entirety for annotations and extraction of aspects of interest, as follows: year, university, author, advisor, program, theory, mode of application, type of study, nature and theme.

Results: the greatest number of productions happened in 2016 with 16 (25.4%) theses, with emphasis on the Northeast with 31 (49.2%). The most used theory was the Theory of Transcultural Care in eight (12.7%), with the most investigated theme being care in 12 (13%) theses.

Conclusion: the inclusion of nursing theories in teaching and research still remains obscure. It is intended to give visibility to the theme and suggest the deepening of the discussion.

DESCRIPTORS: Nursing Theory; Nursing Research; Bibliometrics; Nursing; Health.
INTRODUCTION

Defined for a long time as the professional of “doing”, dissociated from scientific knowledge, the nurse had his identity construction influenced by historical, social and conceptual nuances, in a context where the development of the labor market, the introduction of technologies and the globalization of knowledge and doing, takes strength in the determination of roles and the promotion of health care(1).

The beginning of nursing science was based on Nightingale concepts, which using a scientific method, observation, started to write the first scientific writings of nursing, which has as its great paradigm the care, discussed and built as object of the profession(2).

In the current context, the affirmation of nursing as a profession with its own field of knowledge requires nurses to conduct their practices based on scientific knowledge, an action supported by the various governmental and category organizations around the world, which advocate the need for professionals capable, through science, of diagnosing, adopting preventive, curative, rehabilitative and health promoting measures in the population(3). A proper part of this science are the theories, which provide theoretical and practical material when being a nurse.

Theories consist of sets of concepts that transmit the systemic look over a phenomenon. They prove to be useful in the description, explanation and prescription of measures in the assistance practice, that is, they support the knowledge and practices of nursing. Thus, the construction and validation of theories by research are necessary for the advancement of nursing as a profession and science (4).

Nursing holds a dynamic, systematized and scientifically based care process, and with its theories is able to relate the facts and form the scientific basis for professional performance, placing the individual within a context that receives social, environmental and human influences(3). For the solidification of this produced knowledge, nursing is continuously reformulating and refining concepts and theories, which are intimately linked to the evolution and expansion of the profession(4).

Hence, the research in nursing emerges as a conductor for the improvement of care and expansion of actions and strategies for its management, based on own theories, focused on humanized interaction between the team of nurses and the patient(5).

In the context of post-graduate courses, the production of knowledge and application of nursing theories have been substantiating and strengthening the science, technology and innovation of the profession. Such strengthening is associated with the production of research in nursing courses stricto sensu, master’s and doctorate degrees in Brazil and worldwide, and in the quality, dissemination and applicability of its productions and publications(6).

The doctoral level (PhD), which has as preliminary level of access to the Master’s degree, is a priority in the area, having its quality recognized through the insertion of PhDs in the labor market with positive indicators related to research with funding and relevant positions in the service and academic community(6). It is from the graduate programs of universities that the largest number of productions with nursing theories (5) come.

It is understood, therefore, that the theories are the basis of a scientifically based nursing; therefore, it is important to know how nurses use them in their doctoral research. For this, this study aimed to characterize the scientific production that uses nursing theories from theses made by nurses in Brazil.
METHOD

This is a bibliometric review, of a descriptive character and quantitative approach, which deals with the evaluation of the development and growth of scientific productions in certain areas present in the literature, based on quantitative methods (7). It is the result of the discipline of Theoretical and Conceptual Bases of Nursing Care, taken at the Academic Master’s Degree Course in Nursing of the Regional University of Cariri.

The study was carried out in November 2019, and its methodological path occurred through the empirical elaboration of the theme, use of research protocol created by the researchers themselves to guide the collection of data, survey of results, analysis, interpretation and presentation.

Inclusion criteria were: theses that applied nursing theories from Postgraduate Nursing programs in Brazil from 2011 to 2019. This time delimitation is justified by the creation of the National Post-Graduation Plan - PNPG 2011-2020, which has as one of the challenges to expand in 10 years the titration of doctors in nursing (8). The exclusion criteria were theses that were not available online.

The search was conducted in the thesis and dissertation bank of the Coordenação e Aperfeiçoamento Pessoal de Nível Superior (CAPES) and in the Plataforma Sucupira. The descriptors “Theory” and “Nursing” were used, intercalated by the Boolean operator “AND”, which resulted in 2,557 documents, between theses and dissertations, the filter “years (2011-2019)”, “theses”, “Knowledge Area: Nursing” and “Evaluation Area: Nursing” was selected, leaving 619 studies that had their summaries read. The inclusion and exclusion criteria were applied, resulting in 364 that underwent detailed analysis using the protocol in which the following items are listed: number, link, title, platform, included/excluded and respective reason. Of these 364 theses, 302 were deposited in the Plataforma Sucupira and 62 in CAPES. Of the total, 296 theses were excluded for not using nursing theories, of these, 59 theses used the Theory of Social Representations, 67 used the Theory of Data, 126 theses used another theory that was not of the nursing area, 14 were excluded for not using any theory, 29 theses were unavailable for access and one thesis was repeated, which resulted in 68 theses for inclusion in the analysis.

The theses were read in their entirety for annotations and extraction of aspects of interest that fed a spreadsheet in Microsoft Excel® version 2019, with the following variables: year of completion, university, author, advisor, program, theory, mode of application, type of study, nature and theme. Five theses were excluded after complete reading for not using the nursing theories, just citing them. At the end, 63 theses formed the corpus of the study.

For data analysis, descriptive statistics with absolute and relative frequency were used to calculate the results and present the findings, explained in graphs.

It is reinforced that this type of study does not require the appreciation of the Ethics Committee in Research with Human Beings; however, for a better reliability and accuracy of the results, the search was carried out by pairs.

RESULTS

Sixty-three Brazilian theses distributed between 2011 and 2019 were analyzed, with the largest number of productions taking place in 2016 with 16 (25.4%) theses, followed by 2017 with 12 (19%), 2015 with nine (14.3%), 2018 with seven (11.1%), 2013 with seven (11.1%), 2014 with five (7.9%), 2012 with four (6.3%), 2011 with two (3.2%) and 2019 with
As for the production regions, the Northeast stood out with 31 (49.2%) and the Southeast with 27 theses (42.9%), mainly in the figures of the State University of Ceará with eight (12.7%) of the total and the University of São Paulo (USP) with nine (14.3%) (Figure 1).

![Figure 1 - Thesis distribution according to the University, between 2011 and 2019 (n=63). Crato, Ceará, Brazil, 2020. Source: Authors (2020)](image)

According to the analysis, 16 (25.4%) works had repeated advisors, with emphasis on one UFPB advisor with five (7.9%) theses oriented and one USP researcher with four (6.3%). Regarding the programs, 49 (77.8%) were postgraduate in nursing, eight (12.7%) postgraduate in clinical care in nursing and health, three (4.8%) interunit graduate in science teaching and three (4.8%) postgraduate in adult health nursing.

The most used theory in the researches was Madelaine Leininger’s Theory of Transcultural Care which was in eight (12.7%), followed by Wanda Horta’s Theory of Basic Human Needs and the Theory of Praxic Intervention in Collective Health Nursing, each one in seven (11.1%) theses (Figure 2).
As for the mode of application of these nursing theories, a deficit was found in the methodological description of the studies; a large part of the researches did not directly explain the mode of use and, even after the analysis of these data, the mode was not clear. However, of those that specified, the greater prominence was given to the use as theoretical reference, in 35 (55.6%) theses.

The prevailing theme was the care with 12 (13%) theses; however, other studies gave a greater focus on other aspects, such as the care of children with 11 (12%), the International Classification for the Practice of Nursing - ICNP® with 10 (10.9%), women’s health with eight (8.7%), cardiovascular diseases in seven (7.6%) studies, six (6.5%) used the Nursing Process and five (5.4%) theses researched the health of the elderly. Besides other themes such as diabetes mellitus, education, interpersonal relationship, consultation and mental health, in three (3.3%) theses respectively, and finally, other themes such as acquired immunodeficiency syndrome, tuberculosis and leprosy, kidney disease, stoma, instruments and stress, each one appearing in two (2.2%) theses.

The most applied type of study was the methodological one with 24 (29.6%) theses, followed by the descriptive study with 20 (24.7%) and the exploratory one with 10 (12.3%). Regarding nature, 30 theses (47.6%) used the qualitative approach, seven (11.1%) quantitative and three (4.8%) were mixed studies.

**DISCUSSION**

In this study, the year 2016 stood out with the largest number of productions, mainly from the Northeast and Southeast regions. Similar reality was found in a study that characterized the scientific productions on nursing consultation in the summaries of theses.
and dissertations published by nurses in Brazil, between the years 2001 and 2015, which had their greatest findings in the Southeast and Northeast regions with 80.5% of results\(^9\).

These data can be explained by the growing expansion of graduate studies in Brazil, which generated an increase in the number of PhDs by 64% between 2012 and 2016, reaching the mark of 1,309 new PhDs. In this same perspective, the Northeast also achieved growth among the other regions, with a relative increase of 61% between 2013 and 2016, even with the Southeast still maintaining the highest number of PhDs\(^6\).

Still on the Northeast Region, a UFPB professor is identified with the largest number of oriented theses, which referenced nursing theories. The Graduate Nursing Program in which this teacher is inserted has had its expansion in recent years with more course availability, more lines of research and deepening, which has favored an increase in scientific production and dissemination in national and international literature\(^10\).

This event is coherent with what has been happening in the other Stricto Sensu Graduate Programs in Brazil, which contribute to the development of the country and advance with new doctoral courses, focused on the formation of outstanding researchers, who have excellence to act in their areas, in the development of skills, educational exercise and the generation of new scientists\(^11\).

In the search of this excellence and as a focus of the study, the nursing theories were the axes investigated in the analyzed theses, in which they assumed mainly the role of theoretical references, which confer scientific visibility, transcending the technical essence of nursing, by offering knowledge that provide the development of praxis\(^12\).

Besides the theoretical references, the scientific visibility also occurs with the structuring of the methodological aspects used in the theses, and it was observed in this bibliometry that the most prevalent type of study was the methodological one, followed by the descriptive and exploratory one. A study\(^13\) that analyzed the performance of 18 PhDs in nursing, working from 1982 to 2010, presented similar findings, with the descriptive and descriptive-exploratory types being the most used in the theses and the methodological as the most applied in quantitative productions. Regarding the research design, the qualitative nature was the most found in the present research, which can be justified by the fact that this approach was the pioneer in health research\(^10\).

With this background, the nursing theories and the forms of application used were diverse, but always justified by the credibility they offer to well-founded work. In this perspective, a qualitative research, carried through with the objective of analyzing the perception of postgraduates about the nursing theories in the formation and professional practice, identified that there is lack of its teaching during the graduation, needing insertion in the curriculums of the courses. In the same way, its resumption in graduate studies was seen as opportune, since the knowledge about the theories allows the professional to see its essence, strengthen the practice scientifically and recognize them as guidelines for the work\(^12\).

It was noted that the theories are not used uniformly in the country and, when used, often happens in a superficial way. However, even with these caveats, Madelaine Leininger’s Theory of Transcultural Care was identified in this study as the theory most used by doctoral students. Contrary to what was found in a study that analyzed productions between 1985 and 2012, in order to identify decisions and actions of nursing care based on the Theory of Transcultural Care, which pointed out a reduced number of publications\(^14\).

Leininger is concerned that understanding and utilizing cultural care, understanding the differences and similarities between cultures, can help in establishing the nature, essence, meanings, expressions and forms of human care, conferring a body of knowledge completely exclusive, credible and reliable to the area of nursing\(^15\).

In this bibliometric review, it was identified that Leininger’s theory was used in the
studies analyzed to understand and implement actions for vulnerable and culturally diverse populations, such as residents of quilombo community, riverbank dwellers and the elderly. For these groups, measures linked to the socio-cultural context were implemented, which provided the opportunity to offer care inherent to being and outlined guidance for nursing practice in the perspective of providing culturally congruent care.

Another theory that, besides converging to this body of knowledge, came to support the systematization of practice, was Wanda de Aguiar Horta’s Theory of Basic Human Needs, the second most used in Brazilian theses, which has as its essence the implementation, by the nursing team, of states of balance, prevention and reversal of imbalances and their conversion into balance, in the assistance to the individual within his basic needs, using the method called Nursing Process (PE)\(^{(16)}\).

The PE was one of the themes worked on in the theses - it is an instrument of systematization of assistance, composed of six phases, which brought unquestionable visibility and appreciation to the profession. Even in the midst of difficulties and challenges in its application, it is seen by nurses as a positive contributor to the quality of care as well as to the recognition of their work\(^{(17)}\).

Reaching the same amount of utilization of the Theory of Horta, another theory that also consists in the nursing assistance, being more directed to a determined field of performance, is the Theory of Practical Intervention of Nursing in Collective Health (TIPESC), of Emiko Yoshikawa Egry. It is based on the historical and dialectic materialist view, and seeks to intervene through a dynamic, dialectic and participative methodology, understanding contradictions of the theoretical and practical field, the objective reality of Collective Health Nursing\(^{(18)}\).

After two decades of use, TIPESC has consolidated itself within the undergraduate and postgraduate disciplines of the Universidade de São Paulo; the experiences have allowed tests of theoretical, methodological, instrumental, political and pedagogical aspects of theory. Even through postgraduation, it was possible the participation of professionals from other health areas, which has enriched TIPESC’s application potential\(^{(19)}\).

It is realized, then, that the nursing theories can also be used by non-nursing professionals, as well as nurses use theories from other areas, as theoretical and methodological support for their research. As an example, the Theory of Social Representations and the Theory of Data Foundation found in productions excluded from this study.

It is reinforced that the use of nursing theories by nurses provides the understanding of nursing as a science and contributes to the valid recognition that the profession deserves\(^{(20)}\). In consonance with the discussion of the recognition and growth of nursing as a science, there are still challenges regarding the formation of human resources, the methodological unpreparedness of researchers, their scientific productions and the transformation of society through the diffusion of knowledge\(^{(11)}\). This reality may explain why the theories are used superficially or not, since accurate knowledge about the theory and its use is necessary.

It is noticeable that already in the graduation course in nursing there is a distance between the formation process and the apprehension and internalization of nursing theories as theoretical support for the practice, being that the insertion of this content should permeate horizontally the curricular matrix and serve as subsidy for the praxis of future nurses\(^{(21)}\).

Referring to the studied questions, nurse researchers show as relevant the development of studies on the theme of nursing care, because it is defined as the object that characterizes and gives identity to the profession. The care needs to be transfixed in the clinical practice and in the nurses’ records, being based and updated in terms of scientific productions\(^{(22)}\). It is noted, then, in the thesis analyzed in this study, the care as the most investigated theme by the nurses, being them, the care employed in the familiar
and home environments.

It is observed the necessity of the use of nursing theories applied to the care in the practice, in order to transcend and to impact in a direct way, the assistance given to the society and to spread the produced knowledge and consubstantiated by the nurse himself.

As limitations, we have the unavailability of some theses, because many authors, programs and universities do not allow the disclosure, which makes impossible the analysis of a larger quantity of studies that used the nursing theories. There is also a gap in the literature regarding the reflection on the use of theories in general, because we find materials more directed to specific theories and themes and little about the whole body of knowledge that constitutes nursing science. However, this bibliometric study presents itself as an important analysis, because this general view on the use of nursing theories offers to the area the progress that it has already had over the years and opens avenues for reflection on where it wants to go, both in the construction and application of knowledge itself.

CONCLUSION

There is a great amount of nursing theories in theses, the themes that can be worked on and their forms of application, both in research and in the clinical practice of nurses. The inclusion of these theories in the teaching of nursing and the way of using them in the research and the praxis of the nurse are still intricate; in the findings of this characterization, many authors limited the application of the theories only as theoretical landmarks. In some theses, the application of these was only identified in special sections, not being detected in the body of the study.

In this logic, the postgraduation can be seen as an opportunity for the researching nurses to have more approach and appropriation of these theories, using them in a way to contribute to the growth of nursing as a profession and science, including in its methodological studies, giving rise to more knowledge and materials that are closer to both the abstract and the practical level.

With this study, it is intended to give visibility to the theme and suggest that the institutions deepen the discussion on nursing theories in undergraduate and postgraduate degrees, so that students can acquire proximity and domain of what underlies their theoretical and practical knowledge.

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